COM2 communication cards

For process unit BPS1..

Cards with terminal block for process unit BPS1… to communicate as a VISONIK building process station (BPS) starting from version 20.

Two COM2 types with the following connections:

- **BPS1.C2/1F** To connect FLN-devices such as terminal equipment controllers (TEC) and AEROGYR ventilation controllers (RWI) to the floor level network
- **BPS1.C2/2M** To connect Monogyr controllers and switching units to the Monogyr bus

**Use**

COM2 communication cards are used to:

- Integrate individual room control systems into the VISONIK BPS
- Integrate individual room control systems via VISONIK BPS and building level network into a master control system.

**Functions**

COM2 communication cards in the VISONIK BPS facilitate data exchange with the connected individual room controllers via the respective bus (floor level network or Monogyr bus).
Type summary

Communication card for floor level network BPS1.C2/1F
Terminal block PVX1.2PM
Communication card for Monogyr bus BPS1.C2/2M
Terminal block PVX1.2PM

Equipment combination

Process unit, system neutral BPS1... Data sheet 8414
Program card BPS1.M/E2 Data sheet 8318

Technical design

Depending on the type, COM2 communication cards provide the following functional units:
– interface adapter to the Floor Level Network
or
– interface adapter to the Monogyr bus

The EEPROM serves to store canned data and configuration data.
Interface specifications, see "Technical data".

Mechanical design

Plug-in circuit boards, with Faston tabs to the terminal block on the connection side. The associated terminal block is mechanically encoded allowing to connect the block only in the correct location (II) on the process unit.

View of the BPS1.C2/1F card

1 Plug contacts to the terminal connection block on the process unit
2 Internal plug connection to the process unit
View of the BPS1.C2/2M card

1. Plug contacts to the terminal connection block on the process unit
2. Internal plug connection to the process unit

**Engineering notes**

Observe the following during engineering:

- Use the cards only for applications as described in the brief description on the title page (bold print) and in section "Use".
- The specifications in section “Technical data” apply to all connections.
- Wire the cards in accordance with section “Internal diagrams”.
- The section “Technical data” in data sheet 8301 (VISIONIK Building Process Station, overview) applies to the bus connections in an overall system.

**Mounting notes**

The communication cards come with a set of instructions illustrating how and where the cards must be installed.

Do not touch any electrical contacts or components on the open unit. Electrostatic discharges may destroy sensitive components!

When mounting the cards, apply appropriate protective measures as, for example, using an earthed ESD-antistatic mat with wrist connection.

**Commissioning notes**

Requirements

In order to commission and test communications, a program card must be plugged into the VISIONIK BPS.

**Technical data**

**General data**

<table>
<thead>
<tr>
<th>CE-conformity:</th>
<th>89/336/EEC</th>
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<tr>
<td>Electromagnetic compatibility</td>
<td>EN 50 081-1</td>
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<tr>
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Weight with terminal block, no packaging materials 0.25 kg

Note

Ambient conditions and other general data of process unit PRV2 equally apply to the cards. Refer to “Technical data” in data sheet 8411.
Floor level network card BPS1.C2/1F

- Physical layer fully compatible with Profibus
- Transmission speed 19200 bps (fixed)
- Transmission level to RS485
- Round cable connection to terminal block II, PVX1.2PM screened
- Round cable 2-pin, polarity dependent
  - length of a bus segment max. 1200 m incl. spur lines
  - length of all spur lines max. 500 m
  - length of one spur line max. 250 m
- Multiple bus length max. 3 repeaters in series
- Total length between 2 FLN-devices max. 4800m (4 bus segments)
- Network topology see data sheet 8026

Monogyr bus card BPS1.C2/2M

- Transmission speed 1024 bps (fixed)
- Round cable connection to terminal block II, PVX1.2PM unscreened
- Round cable 2-pin
  - line length with 1.5 mm² max. 1500 m
  - line length with 1.0 mm² max. 1000 m
- Topology: line, star, tree configurations see data sheet 8277

Internal diagrams

**FLN bus card BPS1.C2/1F**

- Terminal X1
- Signal W, M9, UR, UG, UP, UN

**Monogyr bus card BPS1.C2/2M**

- Terminal X1
- Signal W, M9, UR, UG, UP, UN

**Floor Level Network (FLN-bus)**

- Terminal Signal
  - UR Remote supply line for bus amplifier (repeater)
  - UG Signal ground
  - UP Data line positive
  - UN Data line negative
  - Connection for cable screening

**Monogyr-bus (M-bus)**

- Terminal Signal
  - W Bus signal
  - M9 Bus neutral

**Connectors**

- X1 Internal plug connection to process unit